

Updating the ITS Architecture for Canada Phase II - English Update and Scoping for French Update

Webinar Part 2: Review of Proposed Update Approach and Stakeholder Feedback

July 31, 2019
1:30 pm - 3:30 pm EDT

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Note: multiple

Agenda

1.0 Review of Part 1 Webinar

2.0 Proposed Approaches for Update

3.0 Next Steps

1.0 Review of Part 1 Webinar



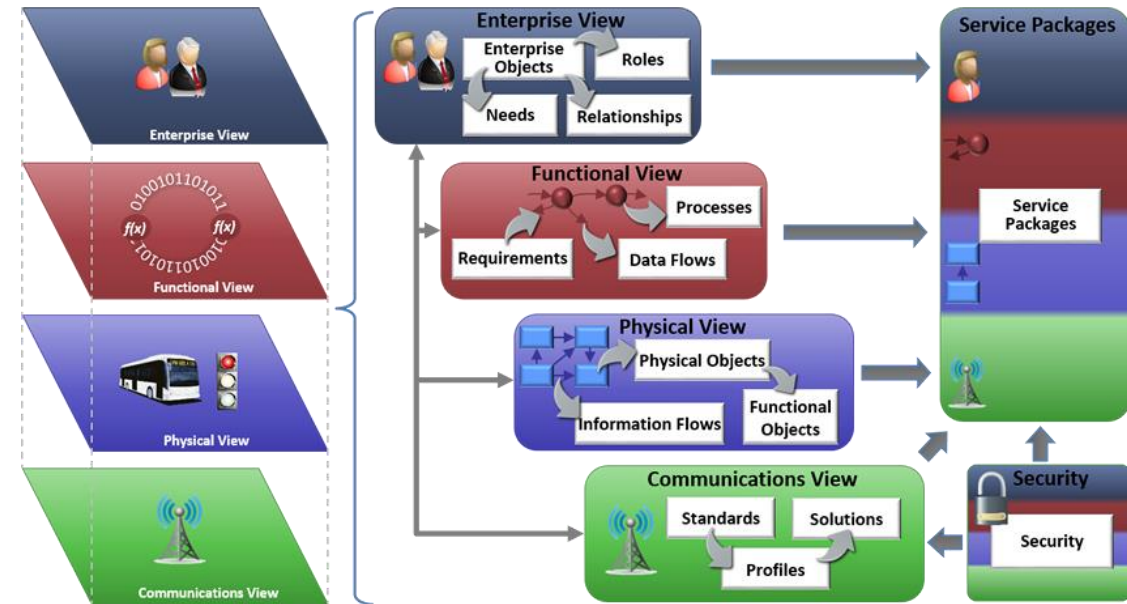
'Quicker' ITS Architecture Primer

What is a National ITS Architecture?

A National ITS Architecture provides a common framework for planning, defining, and integrating intelligent transportation systems.

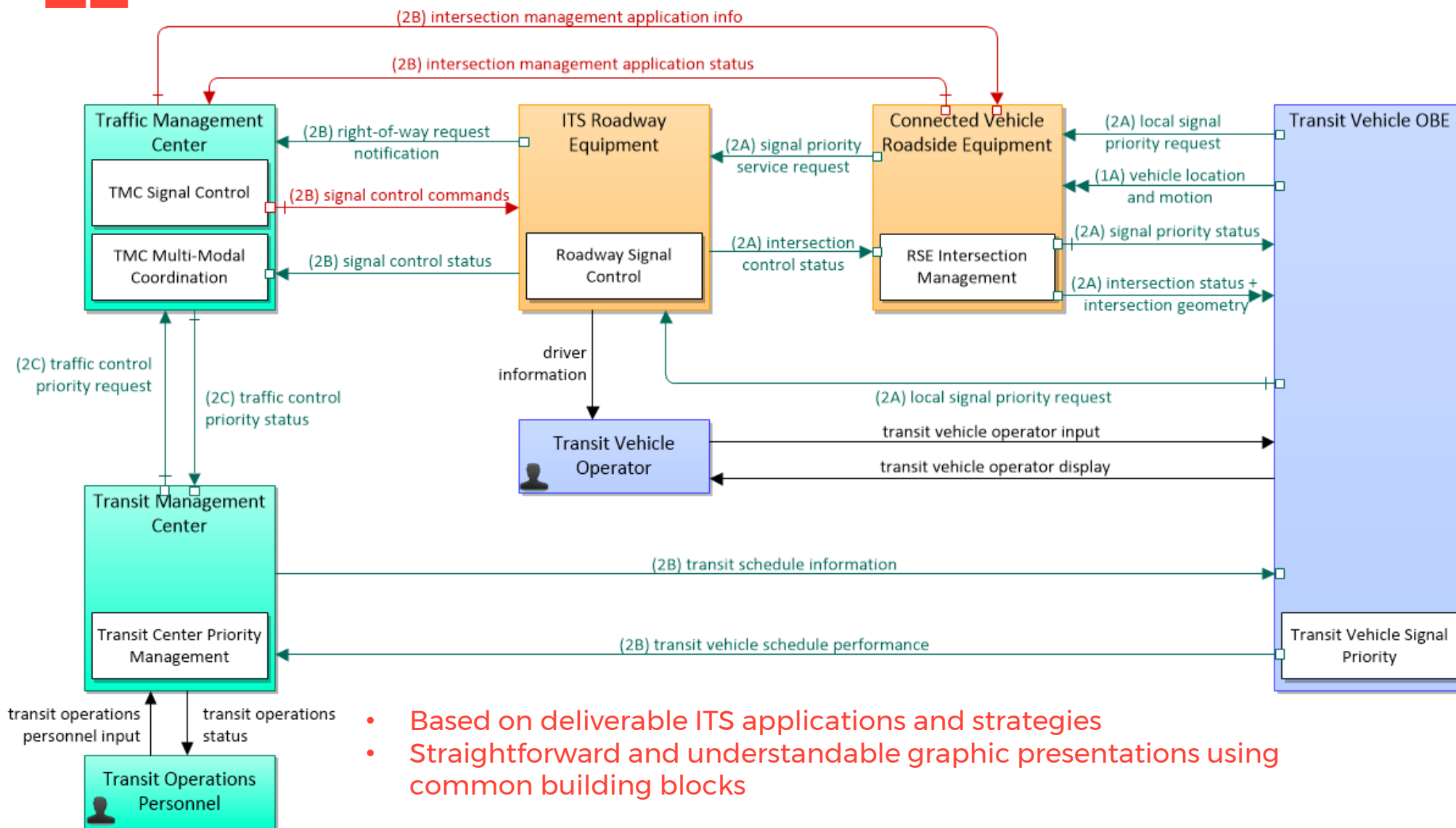
Reference Architecture

- Non-specific - identifying physical systems by generic terms
- Functionally oriented and not technology specific
- Not design prescriptive, identifying adaptable physical frameworks and in many cases multiple options for deployment



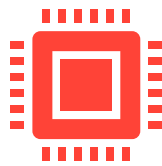


Service Packages - example: Transit Signal Priority

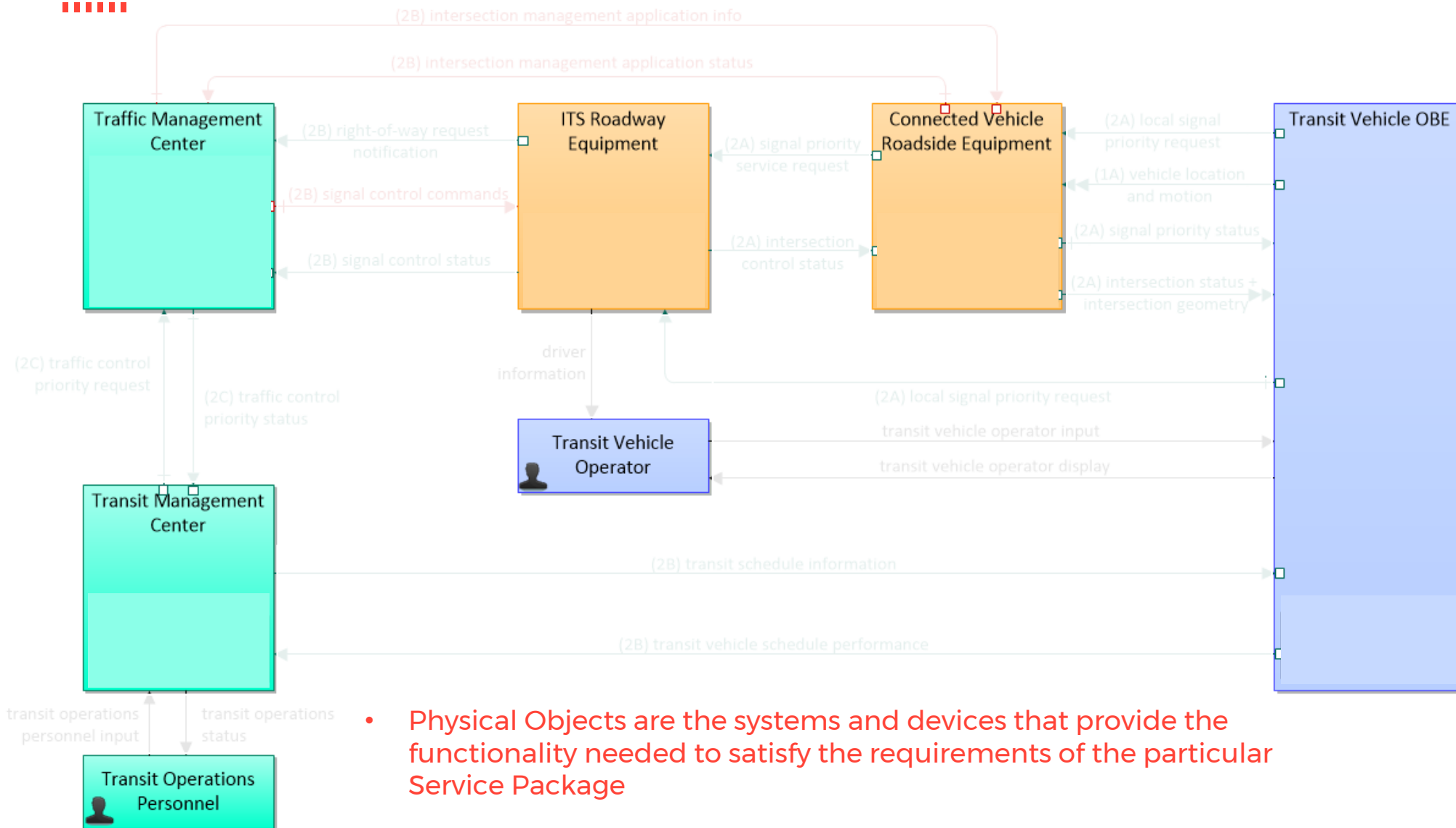


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- Based on deliverable ITS applications and strategies
- Straightforward and understandable graphic presentations using common building blocks

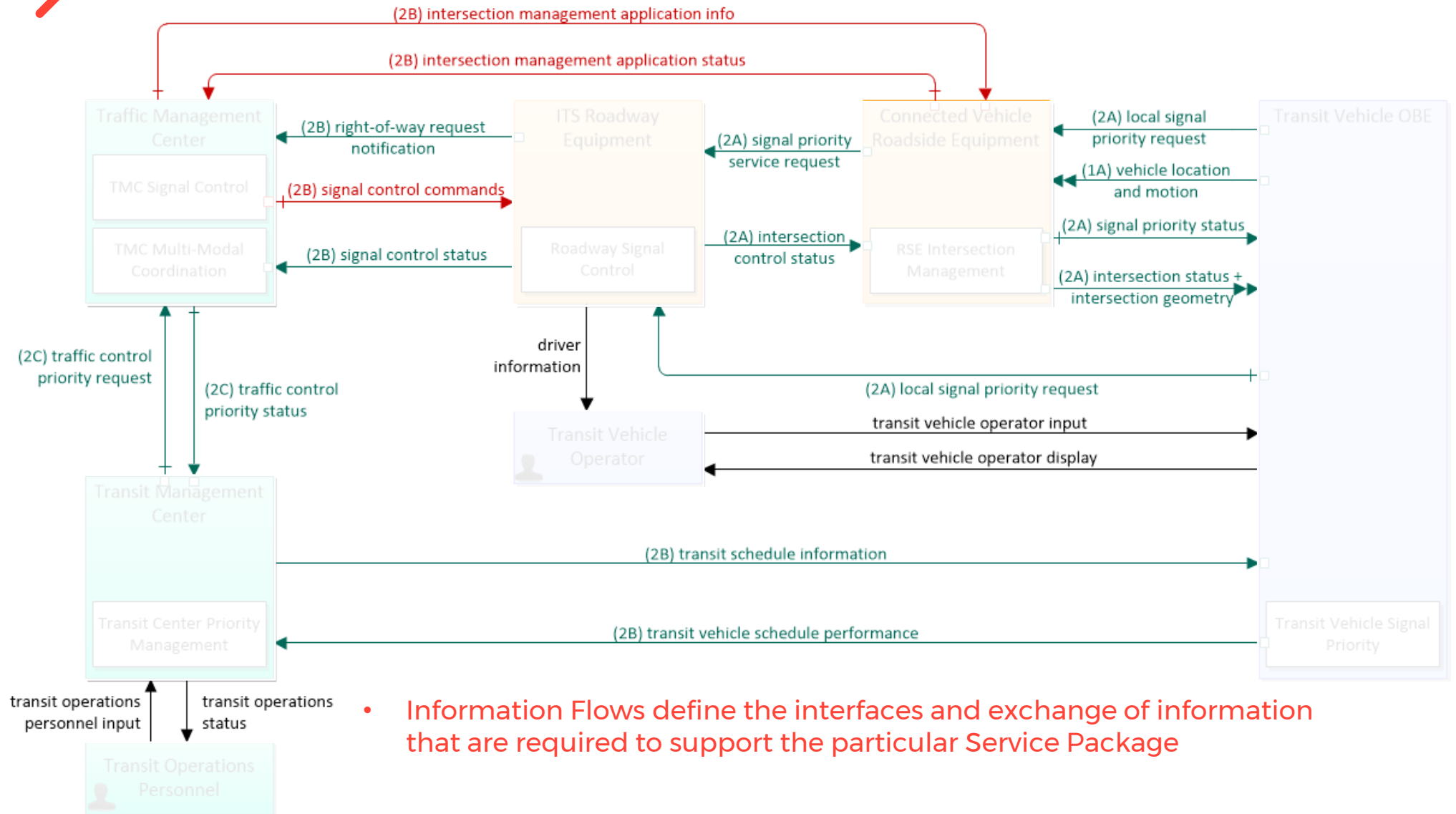


Physical Objects



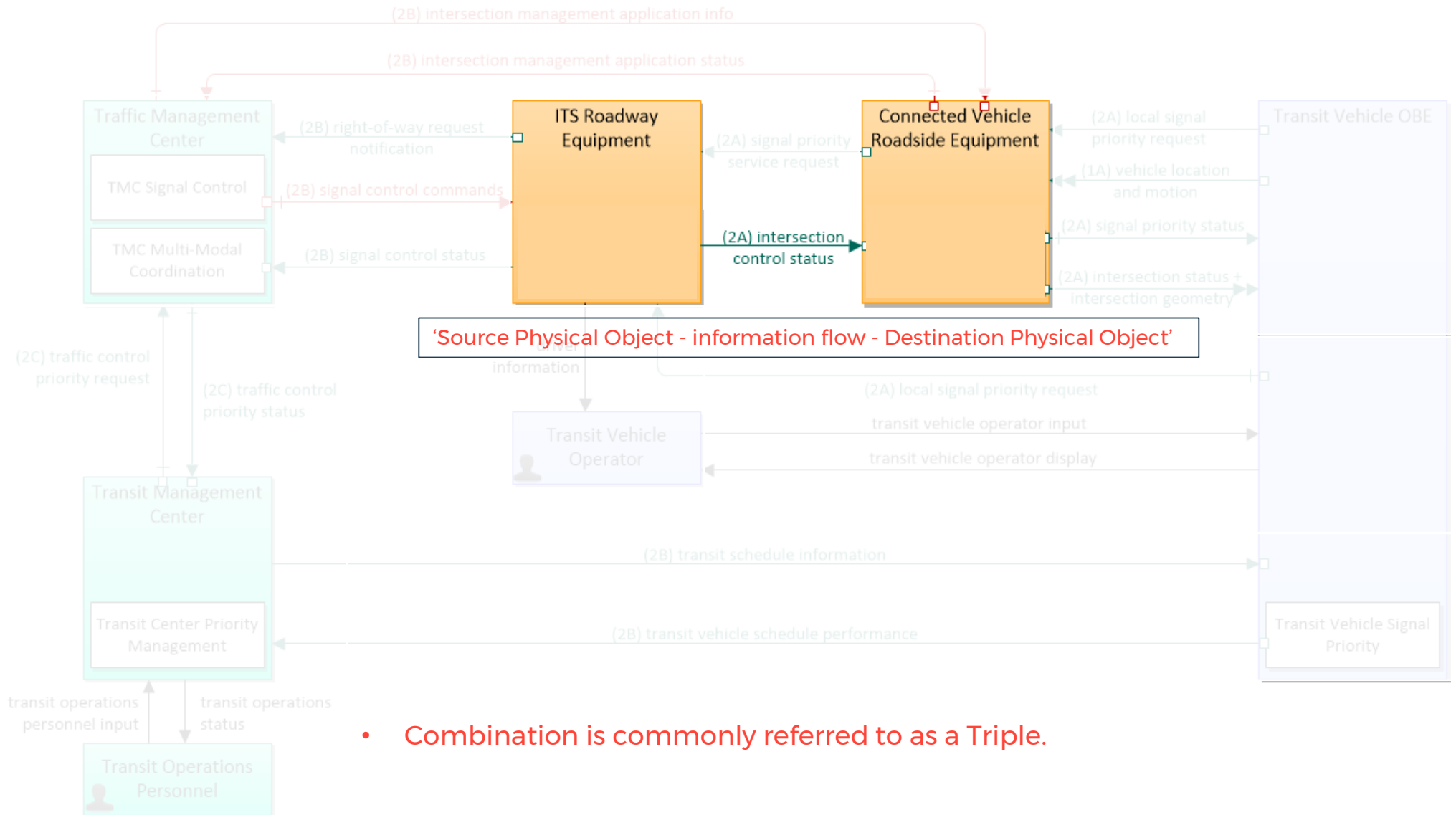
- Physical Objects are the systems and devices that provide the functionality needed to satisfy the requirements of the particular Service Package

Information Flows



- Information Flows define the interfaces and exchange of information that are required to support the particular Service Package

🔗 Triples

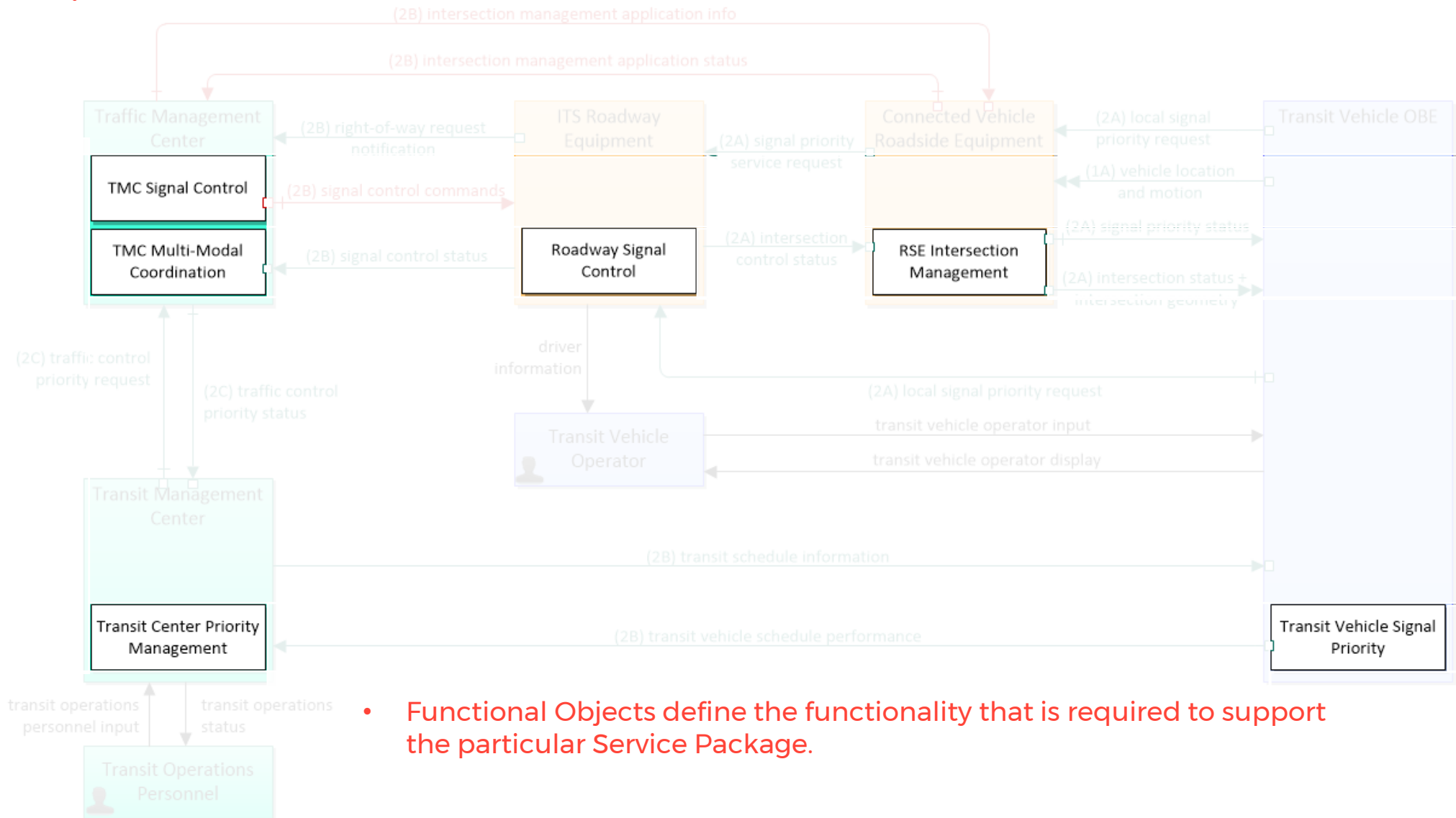


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- Combination is commonly referred to as a Triple.



Functional Objects



- Functional Objects define the functionality that is required to support the particular Service Package.

Background and Project Scope

Relationship Between U.S. and Canadian Architectures

Connected Vehicle Reference Implementation Architecture (CVRIA)

- ✓ Developed as the basis for identifying the key interfaces across the connected vehicle environment which will support further analysis to identify and prioritize standards development activities

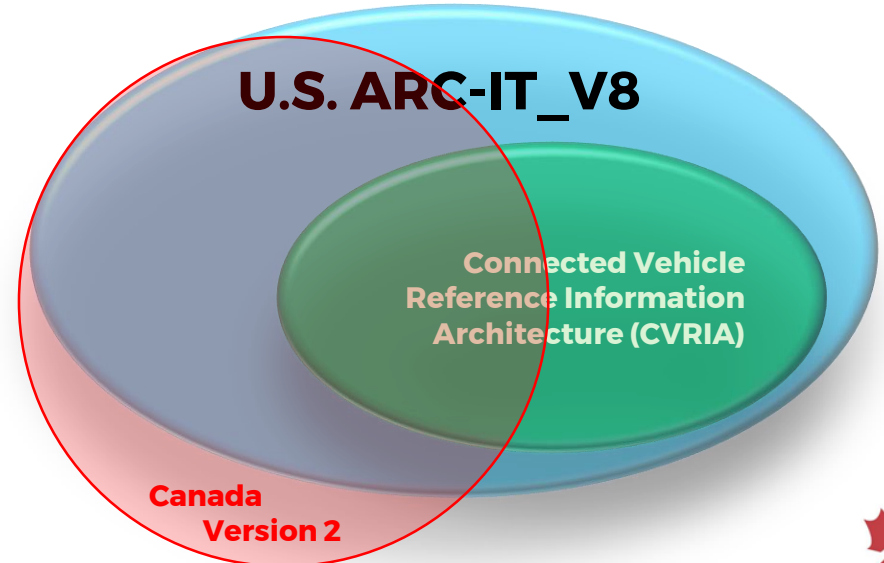
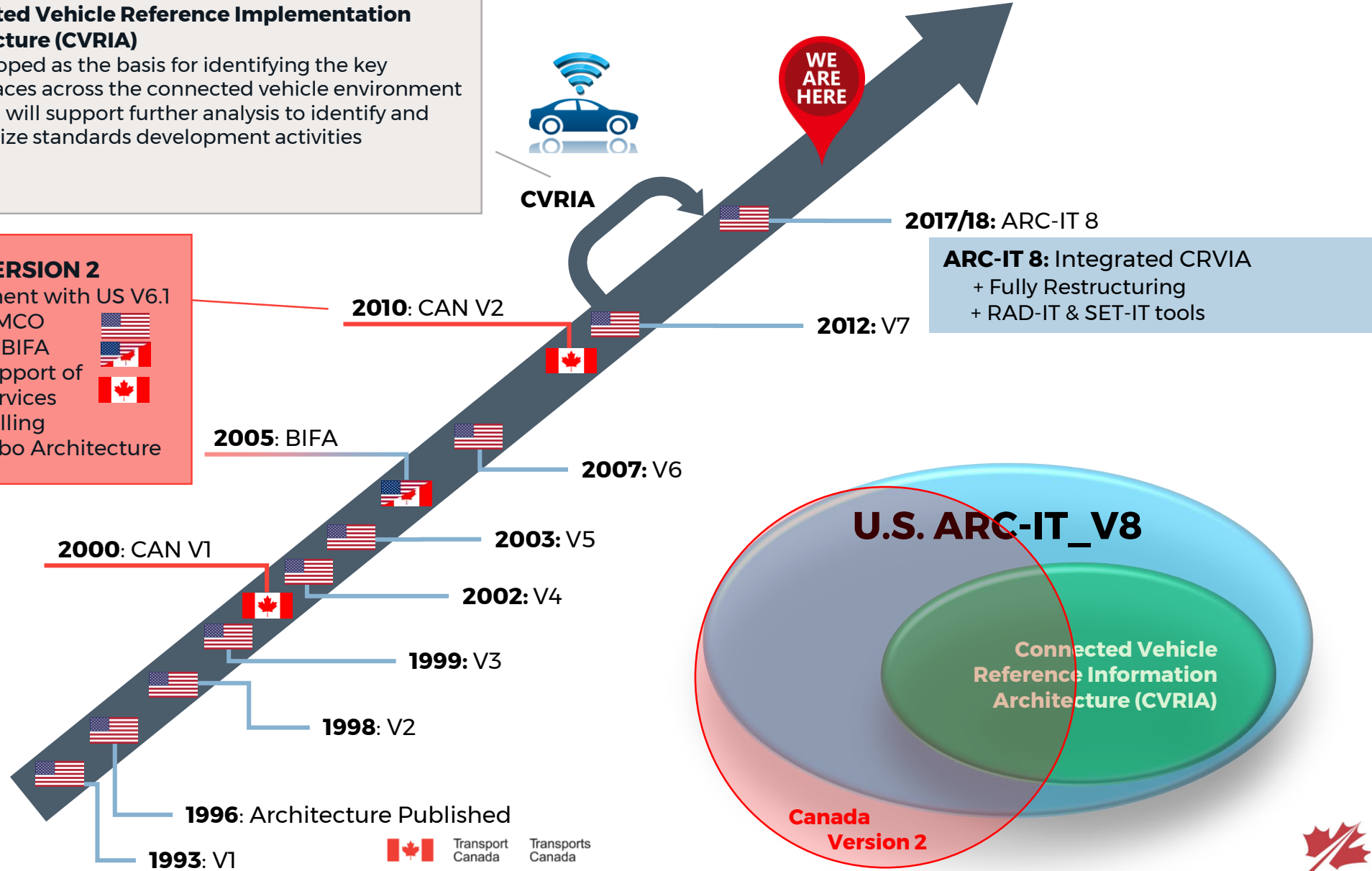


CVRIA

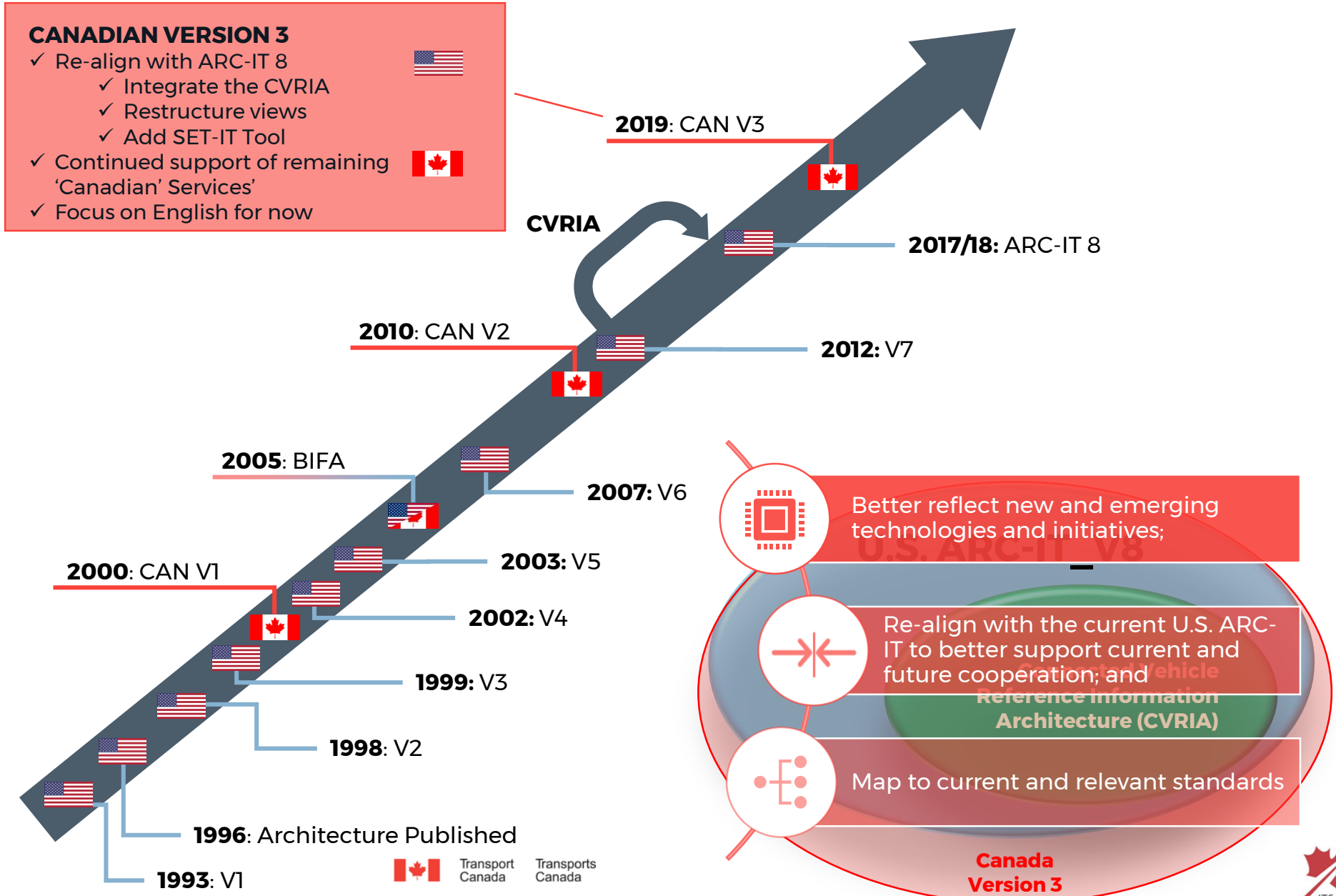


CANADIAN VERSION 2

- ✓ Full re-alignment with US V6.1
 - ✓ Adopted MCO
- ✓ Incorporated BIFA
- ✓ Continued support of 'Canadian' Services
- ✓ Bilingual, Spelling
- ✓ Canadian Turbo Architecture



Version 3 Update of the ITS Architecture for Canada



Project Work Plan

Task 1:

Project Management & Kick off

Task 2:

Coordination and Cooperation with Transport Canada and the USDOT

Task 3:

Assessment of Differences and Development of Guiding Principles

Task 4:

English Version 3 Update of the ITS Architecture for Canada

Task 5:

Assessment of Effort for French Version 3 Update

Fall 2018

Kick-off Meeting
Nov 29, 2018

Winter 2019

Spring 2019

PSC Meeting #2
Apr 25, 2019

Meeting #1
Project Introduction
June 4, 2019

PSC Meeting #3
Jun 24, 2019

Assessment of Differences and Update Approach
Technical Memo

WE ARE HERE

Summer 2019

Stakeholder Webinar(s) to Agree on Approach

Fall 2019

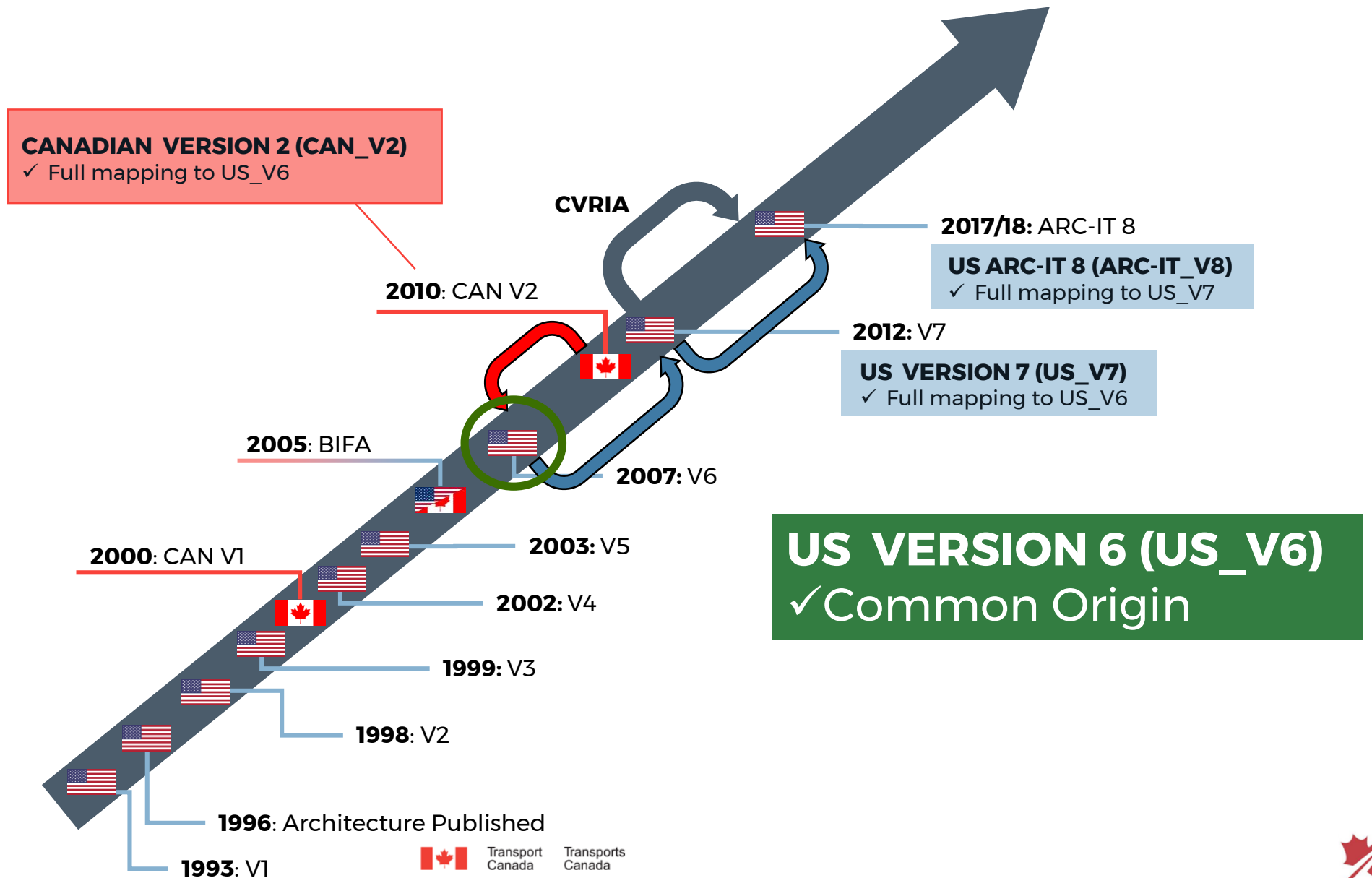
Stakeholder Webinar #2 to present results and promote usage

Updated Databases & s/w Tools

French Update Tech. Memo

Assessment of Differences

How to Compare and Assess Differences



How is a Service Package Assessed as 'Fully Unique' or 'New'?

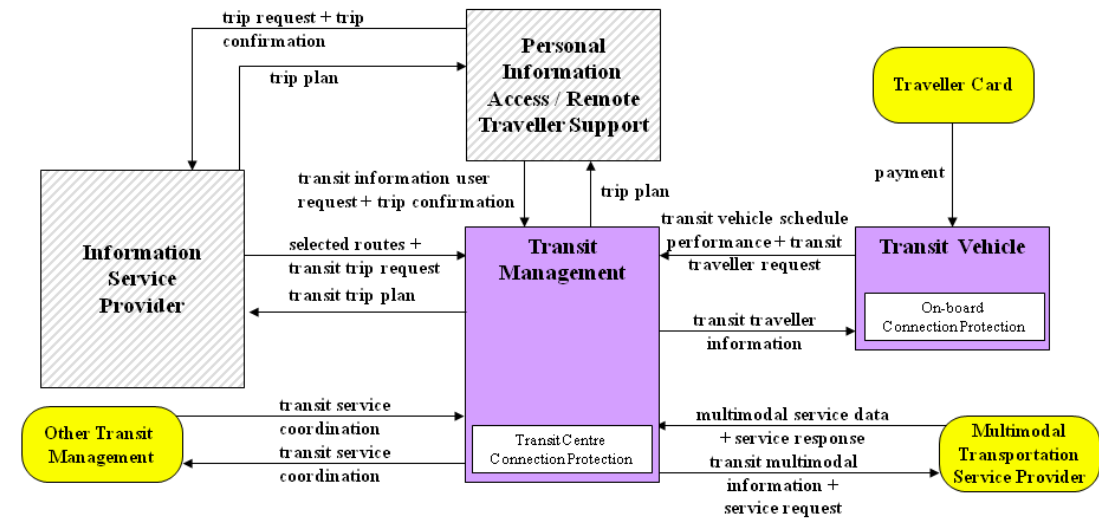


US_V6 Service Package

NONE

CAN_V2 Service Package

APTS101 – Multi-Modal Connection Protection



Fully Unique Service Package
(in comparison to US_V6)



Unique CAN_V2 Service Packages



Service Package	Name	Scope/Function
APTS101	Multi-Modal Connection Protection	<ul style="list-style-type: none"> Multi-modal coordination for travellers, across agencies.
ATMS101	Dynamic Roadway Warning	<ul style="list-style-type: none"> Warnings generated based on local conditions (e.g. traffic, weather).
ATMS102	Signal Enforcement	<ul style="list-style-type: none"> Red light cameras.
ATMS103	Standard Mixed Use Warning Systems	<ul style="list-style-type: none"> Near-term sensing and warning for pedestrians/cyclists.
ATMS104	Advanced Mixed Use Warning Systems	<ul style="list-style-type: none"> Advanced sensing and warning for pedestrians/cyclists.
CVO101	Freight Terminal Management	<ul style="list-style-type: none"> Supports operations of an intermodal terminal.
CVO102	International Border Registration	<ul style="list-style-type: none"> Registration and enrollment of carriers, drivers, etc.
CVO103	International Border Pre-Processing	<ul style="list-style-type: none"> Submission and pre-processing of manifest data.
CVO104	International Border Inspection	<ul style="list-style-type: none"> Inspection services at the border.
MC101	Roadway Micro-Prediction	<ul style="list-style-type: none"> Very localized forecasting of roadway conditions to support maintenance operations.



New ARC-IT_V8 Service Packages



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Service Package	Name
CVO06	Freight Signal Priority
CVO09	Freight-Specific Dynamic Travel Planning
CVO10	Road Weather Information for Freight Carriers
CVO11	Freight Drayage Optimization
DM02	Performance Monitoring
PM02	Smart Park and Ride System
PM06	Loading Zone Management
PS06	Incident Scene Pre-Arrival Staging Guidance for Emergency Responders
PS07	Incident Scene Safety Monitoring
PT10	Intermittent Bus Lanes
PT11	Transit Pedestrian Indication
PT12	Transit Vehicle at Station/Stop Warnings
PT13	Vehicle Turning Right in Front of a Transit Vehicle
PT15	Transit Stop Request
PT16	Route ID for the Visually Impaired
PT17	Transit Connection Protection
ST02	Eco-Traffic Signal Timing
ST03	Eco-Traffic Metering
ST05	Electric Charging Stations Management
ST08	Eco-Approach and Departure at Signalized Intersections
ST09	Connected Eco-Driving
ST10	Low Emissions Zone Management

Service Package	Name
SU01	Connected Vehicle System Monitoring and Management
SU02	Core Authorization
SU04	Map Management
SU05	Location and Time
SU06	Object Registration and Discovery
SU07	ITS Communications
SU08	Security and Credentials Management
SU09	Device Certification and Enrollment
SU10	Center Maintenance
SU11	Field Equipment Maintenance
SU12	Vehicle Maintenance
SU13	Personal Device Maintenance
TM04	Connected Vehicle Traffic Signal System
TM11	Road Use Charging
TM12	Dynamic Roadway Warning
TM20	Variable Speed Limits
TM21	Speed Harmonization
TM22	Dynamic Lane Management and Shoulder Use
TM23	Border Management Systems
VS07	Road Weather Motorist Alert and Warning
VS08	Queue Warning
VS12	Pedestrian and Cyclist Safety
VS17	Traffic Code Dissemination

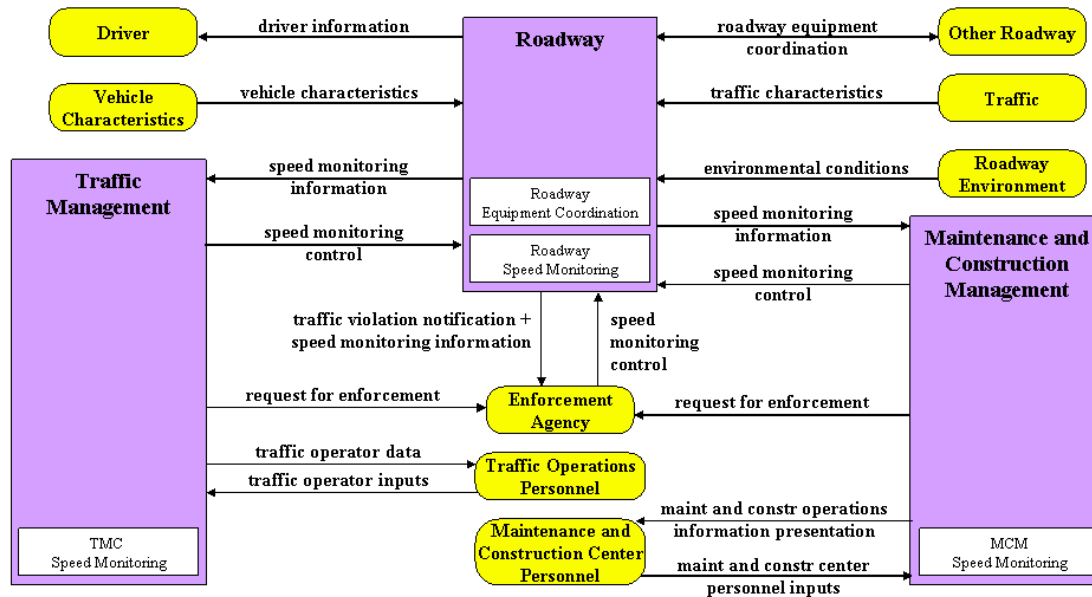


How is a Service Package Assessed as 'having Unique Elements' or 'been Updated'?



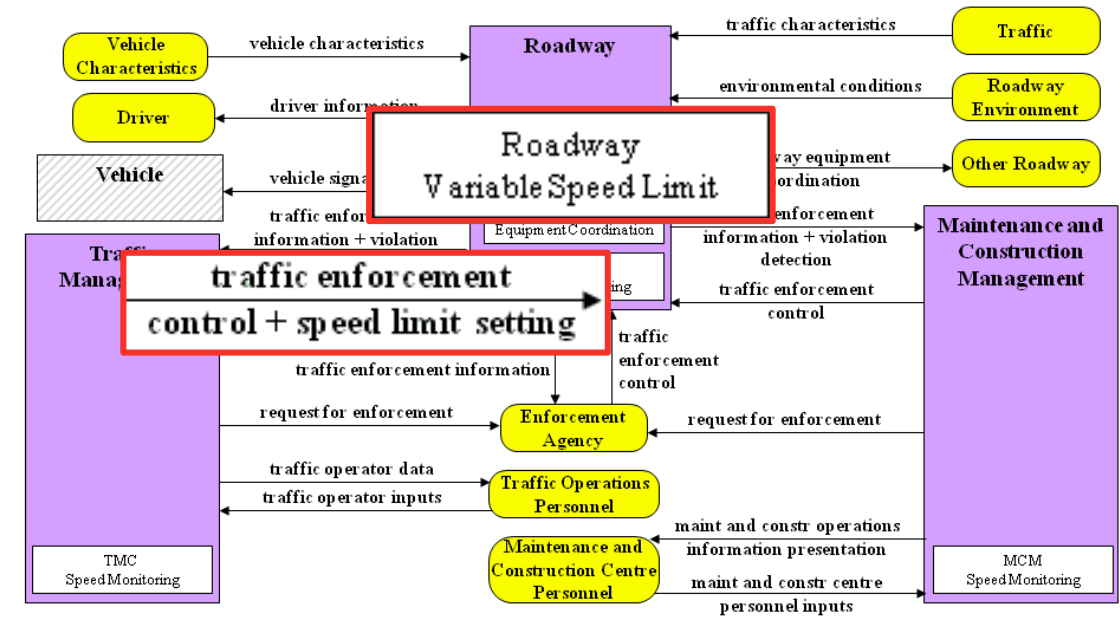
US_V6 Service Package

ATMS19 – Speed Monitoring



CAN_V2 Service Package

ATMS19 – Variable Speed Limit and Enforcement



Service Package with Unique Elements
(in comparison to US_V6)



CAN_V2 Service Packages with Unique Elements



Service Package	Name	Scope/Function
APTS08	Transit Traveller Information	<ul style="list-style-type: none"> Multi-modal trip planning.
ATIS01	Broadcast Traveller Information	<ul style="list-style-type: none"> Border wait time data.
ATIS02	Interactive Traveller Information	<ul style="list-style-type: none"> Border wait time data.
ATMS19	Variable Speed Limit and Enforcement	<ul style="list-style-type: none"> Central and local variable speed limits Violation detection and enforcement
ATMS21	Roadway Closure Management	<ul style="list-style-type: none"> Road closure notification
CVO02	Freight Administration	<ul style="list-style-type: none"> Support for intermodal container and cargo
CVO04	CV Administrative Processes	<ul style="list-style-type: none"> Commercial vehicle and driver permits/registration
CVO07	Roadside CVO Safety	<ul style="list-style-type: none"> Violation notification to Enforcement Agency
EM10	Disaster Traveller Information	<ul style="list-style-type: none"> Shelter information from Emergency Management (indirect)
MC03	Road Weather Data Collection	<ul style="list-style-type: none"> Environmental conditions data shared between Traffic Management and Maintenance & Construction Management

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Summary of Comparisons to US_V6

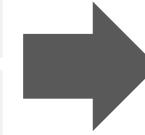
Element Type	CAN_V2	ARC-IT_V8
Service Packages (91)	10 Unique 10 Modified	45 New 81 Updated*
Physical Objects (98)	6 Unique 15 Modified	45 New 21 Updated
Information Flows (488)	71 New	312 New
Triples (988)	130 New	874 New
Functional Objects (219)	34 New	136 New

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Reconciliation by Service Package (example)



CAN_V2	
APTS101	Multi-Modal Connection Protection
Fully Unique	
Multi-modal coordination for travellers, across agencies.	



ARC-IT_V8	
PT17	Transit Connection Protection
Maps fully to <i>ARC-IT_V8 PT17 Transit Connection Protection</i> , including all functional objects.	

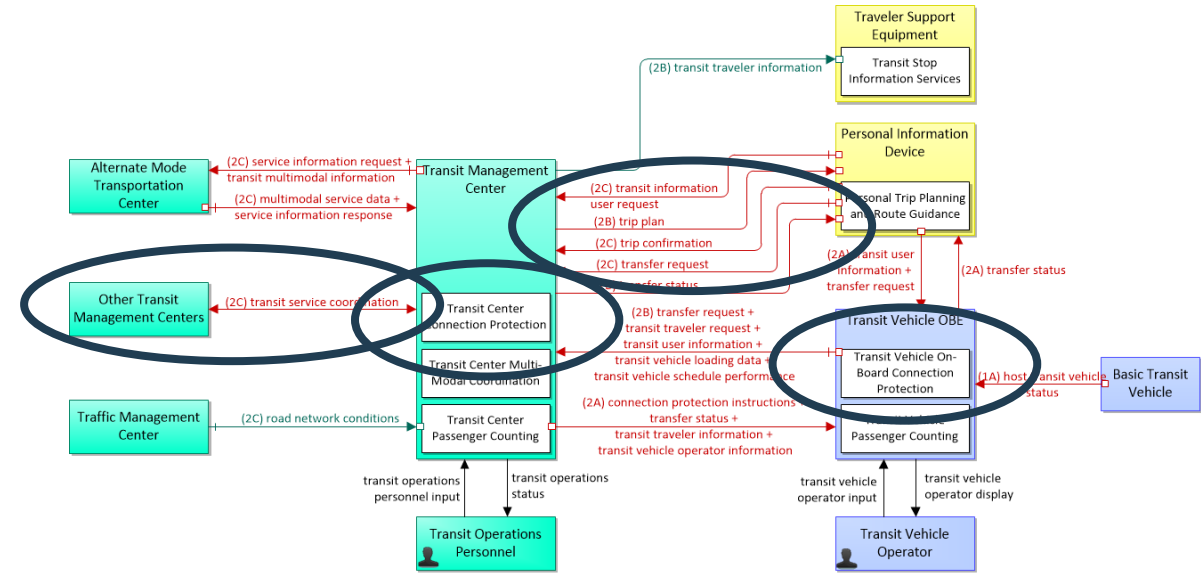
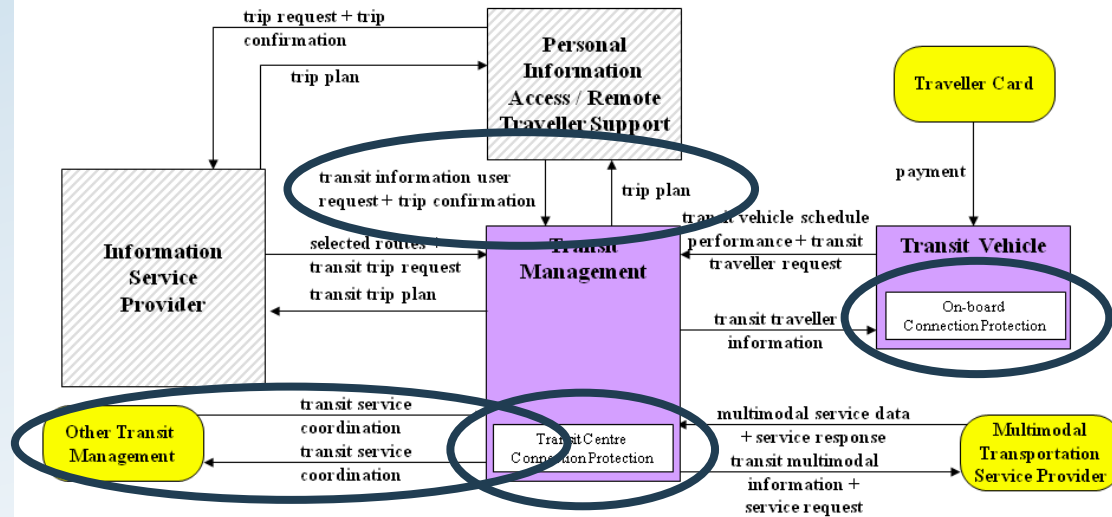


How is a Service Package Assessed as 'having Unique Elements' or 'been Modified'?

CAN_V2 Service Package

ARC-IT_V8 Service Package

APTS101 – Multi-Modal Connection Protection



PT17: Transit Connection Protection			
9	Physical	Dec 14, 2016	NAT

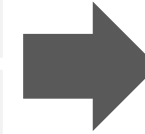
CAN_V2 Service Package maps fully to ARC-IT_V8

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Reconciliation by Service Package (example)



CAN_V2	
CVO103	International Border Pre-Processing
Fully Unique	
Registration and enrollment of carriers, drivers, etc.	



ARC-IT_V8	
CVO05	International Border Electronic Clearance
Maps partially to <i>ARC-IT_V8 CVO05 International Border Electronic Clearance</i> .	
The following functional objects are not in <i>ARC-IT_V8</i>:	
<ul style="list-style-type: none">• Border Pre-Processing	

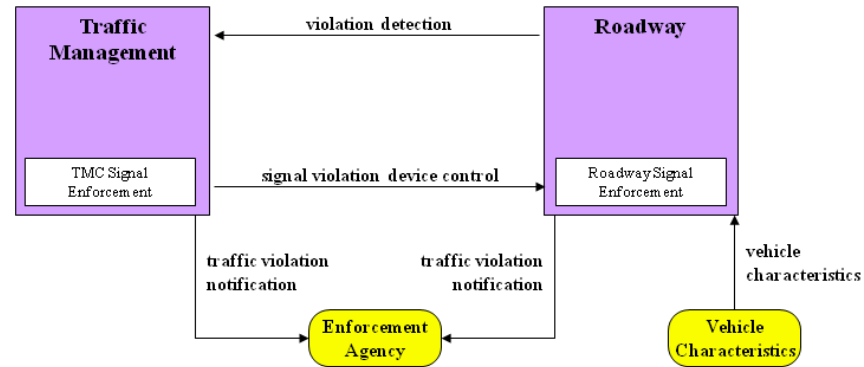


How is a Service Package Assessed as remaining Fully Unique?

CAN_V2 Service Package

ARC-IT_V8 Service Package

ATMS102 – Signal Enforcement



NONE

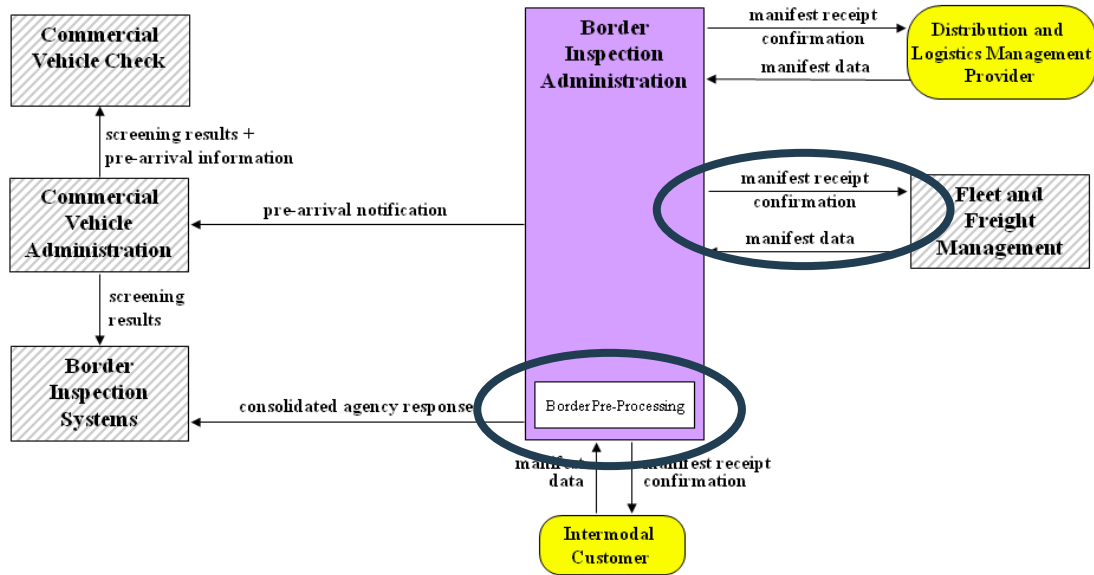
CAN_V2 Service Package remains fully unique

How is a Service Package Assessed as 'having Unique Elements'?



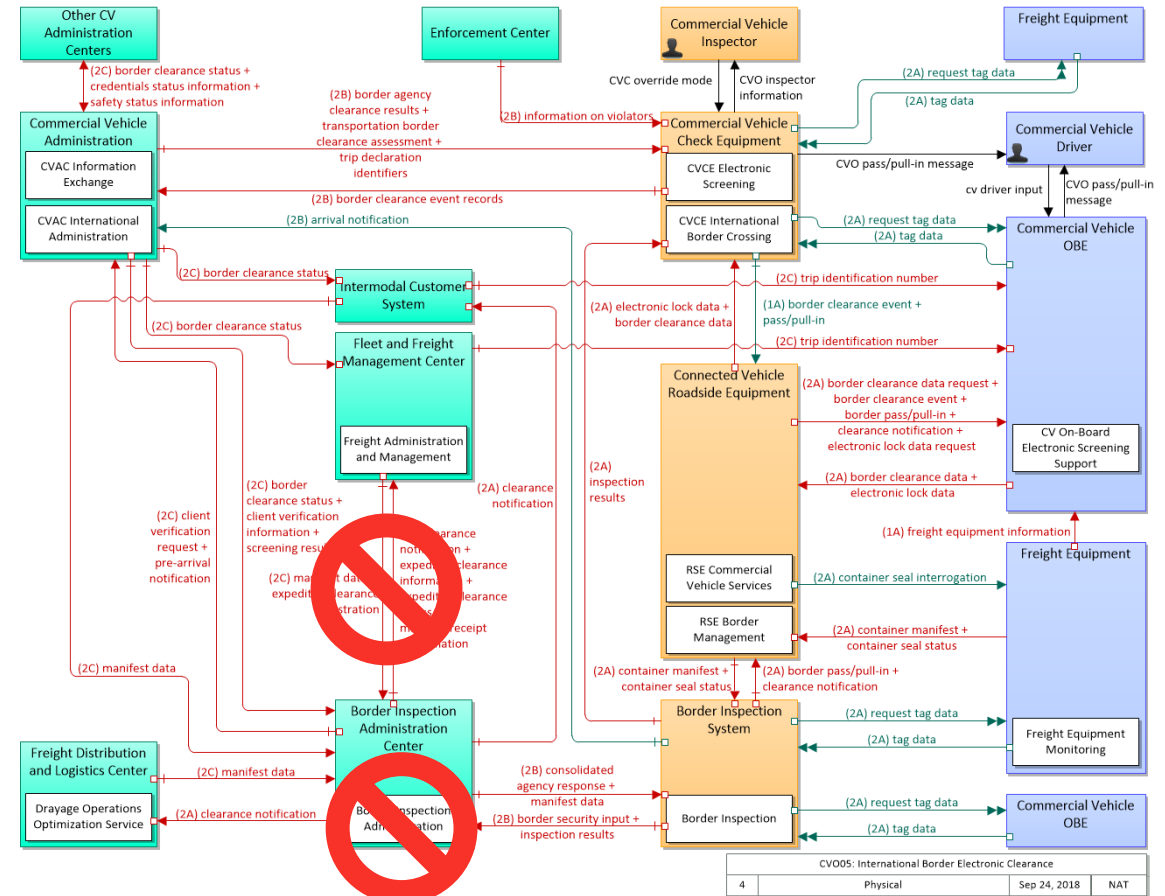
CAN_V2 Service Package

CVO103 – International Border Pre-Processing



CAN_V2 Service Package still includes Unique Elements

ARC-IT_V8 Service Package

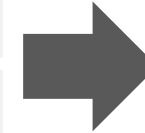


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Reconciliation by Service Package (example)



CAN_V2	
ATMS102	Signal Enforcement
Fully Unique	
Red Light Cameras.	



ARC-IT_V8	
N/A	N/A
Still fully unique, not in ARC-IT_V8.	

Summary of Service Package Reconciliation



CAN_V2 (unique)

APTS08 Transit Traveller Information

APTS101 Multi-Modal Connection Protection

ATIS01 Broadcast Traveller Information

ATIS02 Interactive Traveller Information

ATMS19 Variable Speed Limit and Enforcement

ATMS21 Roadway Closure Management

ATMS101 Dynamic Roadway Warning

ATMS102 Signal Enforcement

ATMS103 Standard Mixed Use Warning Systems

ATMS104 Advanced Mixed Use Warning Systems

CVO02 Freight Administration

CVO04 CV Administrative Processes

CVO07 Roadside CVO Safety

CVO101 Freight Terminal Management

CVO102 International Border Registration

CVO103 International Border Pre-Processing

CVO104 International Border Inspection

EM10 Disaster Traveller Information

MC03 Road Weather Data Collection

MC101 Roadway Micro-Prediction

ARC-IT_V8 (mapped)

PT08 Transit Traveler Information*

PT17 Transit Connection Protection

TI01 Broadcast Traveler Information

TI02 Personalized Traveler Information

TM17 Speed Warning and Enforcement

TM20 Variable Speed Limits

TM19 Roadway Closure Management

TM12 Dynamic Roadway Warning

N/A

VS12 Pedestrian and Cyclist Safety

CVO02 Freight Administration

CVO04 CV Administrative Processes

CVO07 Roadside CVO Safety

CVO11 Freight Drayage Optimization

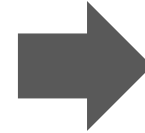
CVO05 International Border Electronic Clearance

TM23 Border Management Systems

PS14 Disaster Traveler Information

WX01 Weather Data Collection

N/A



2.0 Proposed Approaches for Update



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Governing Principles

Governing Principles

- Bring the ITS Architecture for Canada up-to-date by realigning with the latest U.S. ARC-IT
- Minimize/avoid differences to the degree possible
- Facilitate the easy adoption of subsequent updates and changes made by the U.S.
- Minimize need for ongoing maintenance

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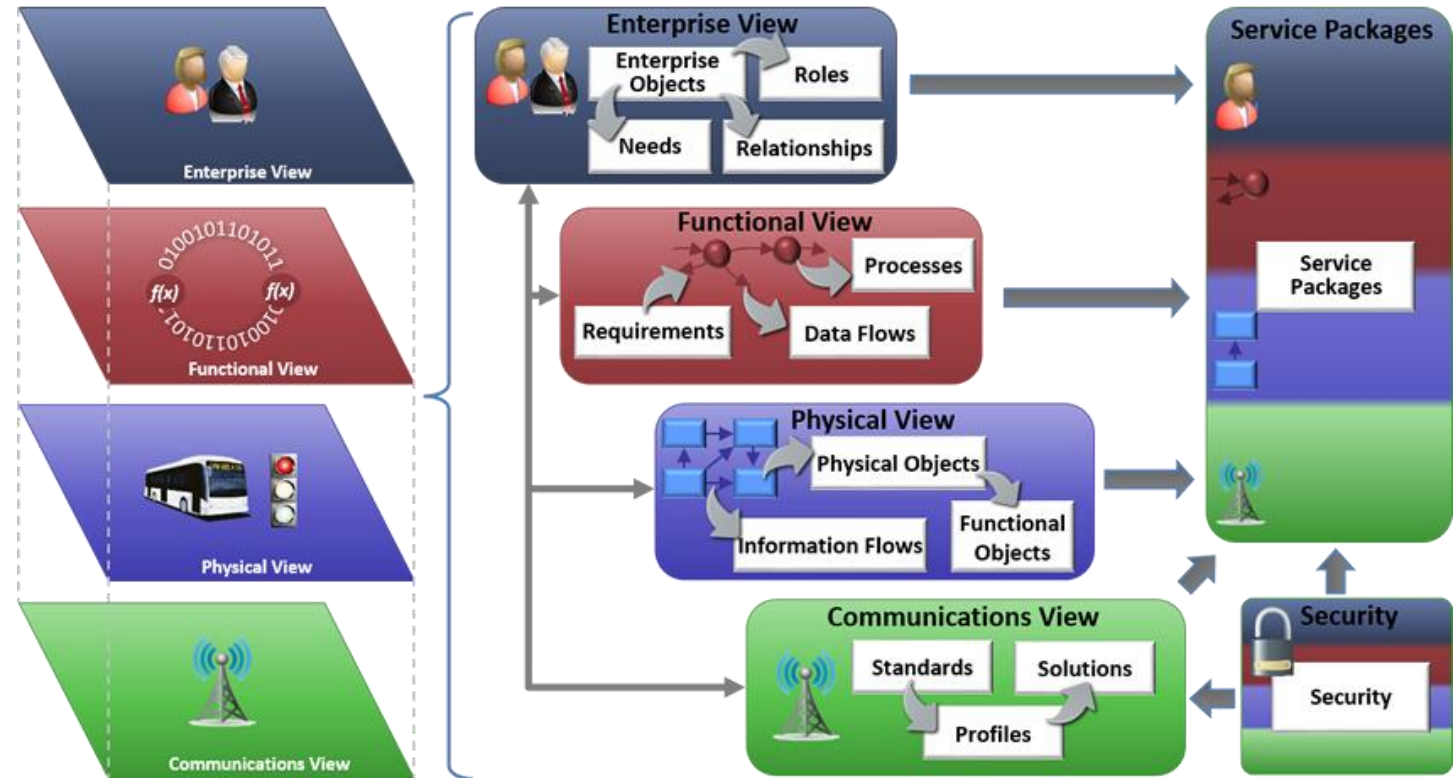
Note: multiple

Structure and Organization



ARC-IT Framework Structure

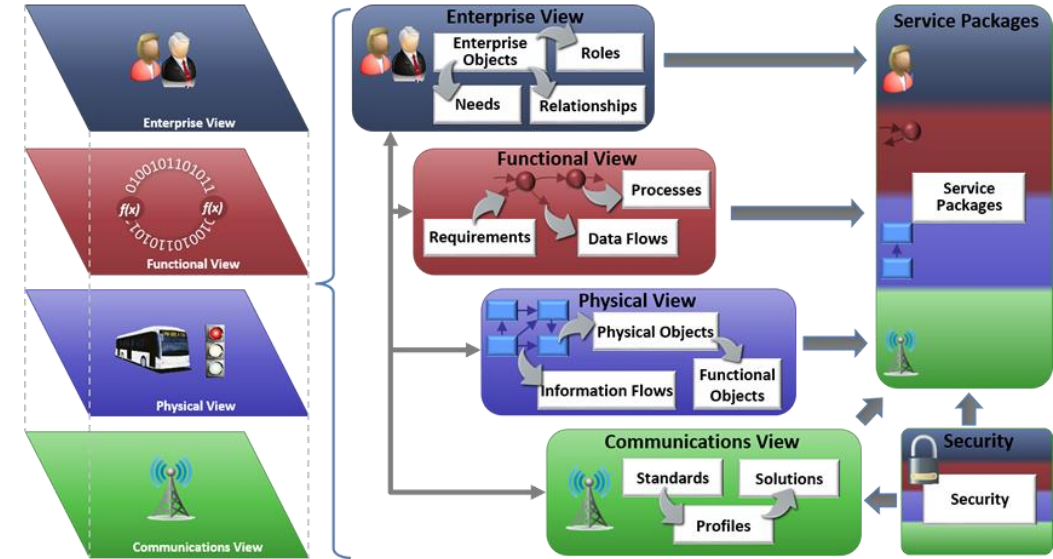
- Defined around 4 views:
 - **Enterprises** to carry out services
 - **Functions** to implement services
 - **Physical** objects and information flow to implement that functionality
 - **Communications** protocols required for implementation





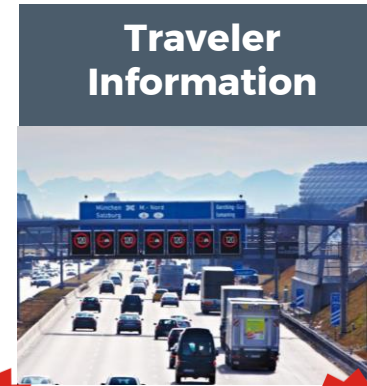
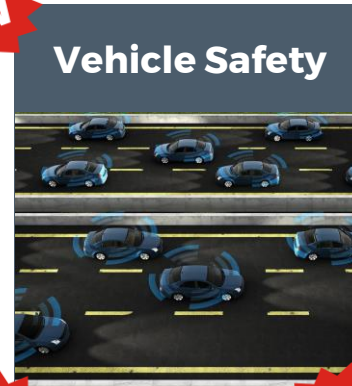
Required Approach for CAN_V3 Update - Structure

- To align with the U.S., Canada **must** adopt the ARC-IT framework structure
- All Canadian-unique elements **must** support all 4 views
 - *Developing and updating **Enterprise** and **Communications** views*
 - *Ensuring the format and level of detail is consistent with ARC-IT*





ARC-IT Service Package Organization



Emergency Management (CAN V2)



Archive Data Management (CAN V2)



RENAMED

NEW

NEW

NEW

NEW



ARC-IT Service Package Reorganization



— Example of 137 Service Packages

US_V6			ARC-IT_V8	
CV001 CV009	Fleet Administration CVO Fleet Maintenance		CVO01	Carrier Operations and Fleet Management
CVO02	Freight Administration		CVO02	Freight Administration
CVO03 CVO06	Electronic Clearance Weigh-In-Motion		CVO03	Electronic Clearance
CVO04	CV Administrative Processes		CVO04	CV Administrative Processes
CVO05	International Border Electronic Clearance		CVO05	International Border Electronic Clearance
*NEW	*NEW		CVO06	Freight Signal Priority
CVO07 CVO08	Roadside CVO Safety On-board CVO and Freight Safety and Security		CVO07	Roadside CVO Safety
CVO06 CVO08	Weigh-In-Motion On-board CVO and Freight Safety and Security		CVO08	Smart Roadside and Virtual WIM

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Required Approach for CAN_V3 Update - Organization

- To align with the U.S., Canada **must** adopt the ARC-IT Service Package organization
 - *For common Service Package, Canada to adopt reorganization (splitting, combining, etc.)*
 - *Any Canadian-unique Service Packages to integrate into appropriate grouping*



New/Updated ARC-IT Elements



Other ARC-IT_V8 Changes since US_V6

Element Type	Changes
Service Packages (137)	45 New 81 Updated
Physical Objects (140)	45 New 21 Updated
Information Flows (810)	312 New
Triples (1675)	874 New
Functional Objects (345)	136 New

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Proposed Approach for CAN_V3 Update - New ARC-IT Elements

It is proposed that for CAN_V3 Canada include full adoption of the new Service Packages, as well as other the supporting elements.

- It is assumed that these additions are relevant to the ITS industry and environment in Canada
- Comprehensive review and identification of potentially non-relevant elements would require significant effort (and may not identify any)
- Facilitates continued alignment with the U.S.
- Ongoing maintenance is minimized

Service Package	Name	Service Package	Name
CVO06	Freight Signal Priority	SU01	Connected Vehicle System Monitoring and Management
CVO09	Freight-Specific Dynamic Travel Planning	SU02	Core Authorization
CVO10	Road Weather Information for Freight Carriers	SU04	Map Management
CVO11	Freight Drayage Optimization	SU05	Location and Time
DM02	Performance Monitoring	SU06	Object Registration and Discovery
PM02	Smart Park and Ride System	SU07	ITS Communications
PM06	Loading Zone Management	SU08	Security and Credentials Management
PS06	Incident Scene Pre-Arrival Staging Guidance for Emergency Responders	SU09	Device Certification and Enrollment
PS07	Incident Scene Safety Monitoring	SU10	Center Maintenance
PT10	Intermittent Bus Lanes	SU11	Field Equipment Maintenance
PT11	Transit Pedestrian Indication	SU12	Vehicle Maintenance
PT12	Transit Vehicle at Station/Stop Warnings	SU13	Personal Device Maintenance
PT13	Vehicle Turning Right in Front of a Transit Vehicle	TM04	Connected Vehicle Traffic Signal System
PT15	Transit Stop Request	TM11	Road Use Charging
PT16	Route ID for the Visually Impaired	TM12	Dynamic Roadway Warning
PT17	Transit Connection Protection	TM20	Variable Speed Limits
ST02	Eco-Traffic Signal Timing	TM21	Speed Harmonization
ST03	Eco-Traffic Metering	TM22	Dynamic Lane Management and Shoulder Use
ST05	Electric Charging Stations Management	TM23	Border Management Systems
ST08	Eco-Approach and Departure at Signalized Intersections	VS07	Road Weather Motorist Alert and Warning
ST09	Connected Eco-Driving	VS08	Queue Warning
ST10	Low Emissions Zone Management	VS12	Pedestrian and Cyclist Safety
		VS17	Traffic Code Dissemination

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Proposed Approach for CAN_V3 Update - Updated ARC-IT Elements

It is proposed that for CAN_V3 Canada also include full adoption of the many updates and modification in ARC-IT.

- It is assumed that these additions are relevant to the ITS industry and environment in Canada
- Comprehensive review and identification of potentially non-relevant elements would require significant effort (and may not identify any)
- Facilitates continued alignment with the U.S.
- Ongoing maintenance is minimized

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Canadian-Unique Functionality



Proposed Approach for CAN_V3 Update - Canadian-Unique Functionality

It is proposed that the 'still Canadian-unique' Service Packages, as well as supporting elements (i.e. physical elements, information flows, and functional objects) be reviewed and assessed by stakeholders and the project steering with respect to the following:

- Whether it still relevant, as the industry may have evolved, and ARC-IT_V8 may support industry-standard approaches.
- Whether a unique reference or clarification is specifically necessary, or whether the content in ARC-IT_V8 is sufficient.

CAN_V2 (unique)	ARC-IT_V8 (mapped)
APTS08 Transit Traveller Information	PT08 Transit Traveler Information*
APTS101 Multi-Modal Connection Protection	PT17 Transit Connection Protection
ATIS01 Broadcast Traveller Information	TI01 Broadcast Traveler Information
ATIS02 Interactive Traveller Information	TI02 Personalized Traveler Information
<i>ATMS19 Variable Speed Limit and Enforcement</i>	<i>TM17 Speed Warning and Enforcement</i>
	<i>TM20 Variable Speed Limits</i>
ATMS21 Roadway Closure Management	TM19 Roadway Closure Management
ATMS101 Dynamic Roadway Warning	TM12 Dynamic Roadway Warning
ATMS102 Signal Enforcement	N/A
ATMS103 Standard Mixed Use Warning Systems	VS12 Pedestrian and Cyclist Safety
ATMS104 Advanced Mixed Use Warning Systems	
CVO02 Freight Administration	CVO02 Freight Administration
CVO04 CV Administrative Processes	CVO04 CV Administrative Processes
CVO07 Roadside CVO Safety	CVO07 Roadside CVO Safety
CVO101 Freight Terminal Management	CVO11 Freight Drayage Optimization
<i>CVO102 International Border Registration</i>	
<i>CVO103 International Border Pre-Processing</i>	<i>CVO05 International Border Electronic Clearance</i>
CVO104 International Border Inspection	TM23 Border Management Systems
<i>EM10 Disaster Traveller Information</i>	<i>PS14 Disaster Traveler Information</i>
MC03 Road Weather Data Collection	WX01 Weather Data Collection
MC101 Roadway Micro-Prediction	N/A



Proposed Approach for CAN_V3 Update - Canadian-Unique Functionality

For those functionalities that are assessed as warranted, it is proposed that the CAN_V3 update limit unique functionality, and unique supporting elements, to separate Canadian-specific Service Packages. The reasons and benefits of this approach include:

- Common Service Packages that are mapped directly, with 1-to-1 mapping of common physical objects, flows/triples, and functional objects
- Facilitates continued alignment with the U.S.
- Ongoing maintenance is minimized
- The U.S., if they choose to, may link to the Canadian-unique Service Packages similar to those of Australia.



Linkage to International Service Packages

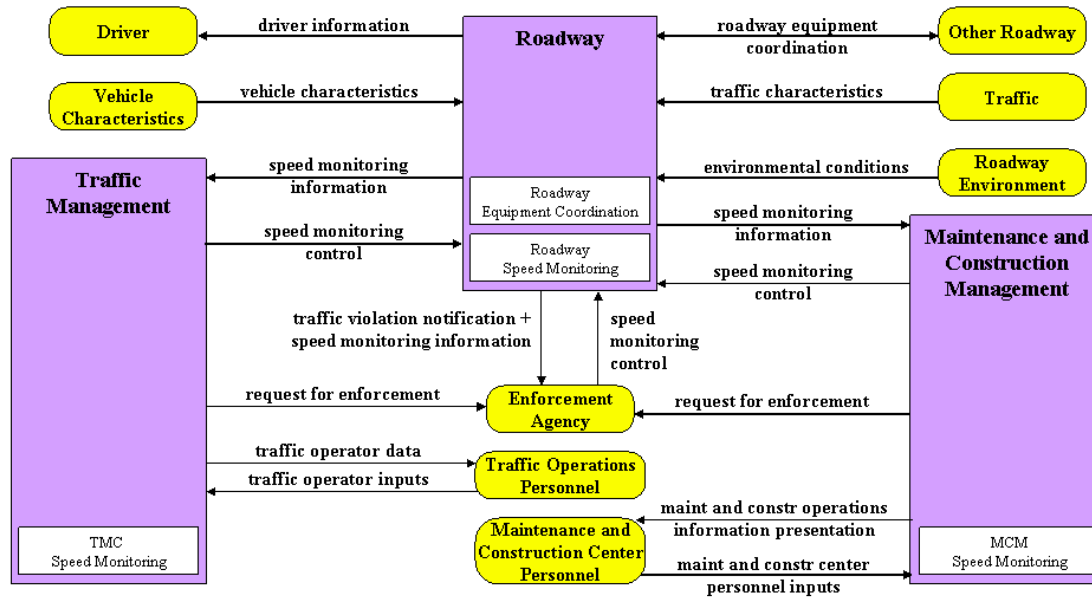
Service Package	Name	Scope/Function
CVO16	Electronic Work Diaries	<ul style="list-style-type: none"> Designed to collect information salient to the operation of a commercial vehicle, to log driver activity (work), and to report that information to regulators as well as fleet managers.
CVO17	Intelligent Access Program	<ul style="list-style-type: none"> Enables commercial vehicle operators simplified access to permit operations in exchange for remote compliance monitoring.
CVO18	Intelligent Access Program - Weight Monitoring	<ul style="list-style-type: none"> Enables commercial vehicle operators simplified access to permit operations in exchange for remote weight monitoring.
CVO19	Intelligent Speed Compliance	<ul style="list-style-type: none"> Uses the Global Navigation Satellite System (GNSS) to independently monitor the speed of a heavy vehicle and provide that information to regulatory authorities.

This will avoid this scenario the last update



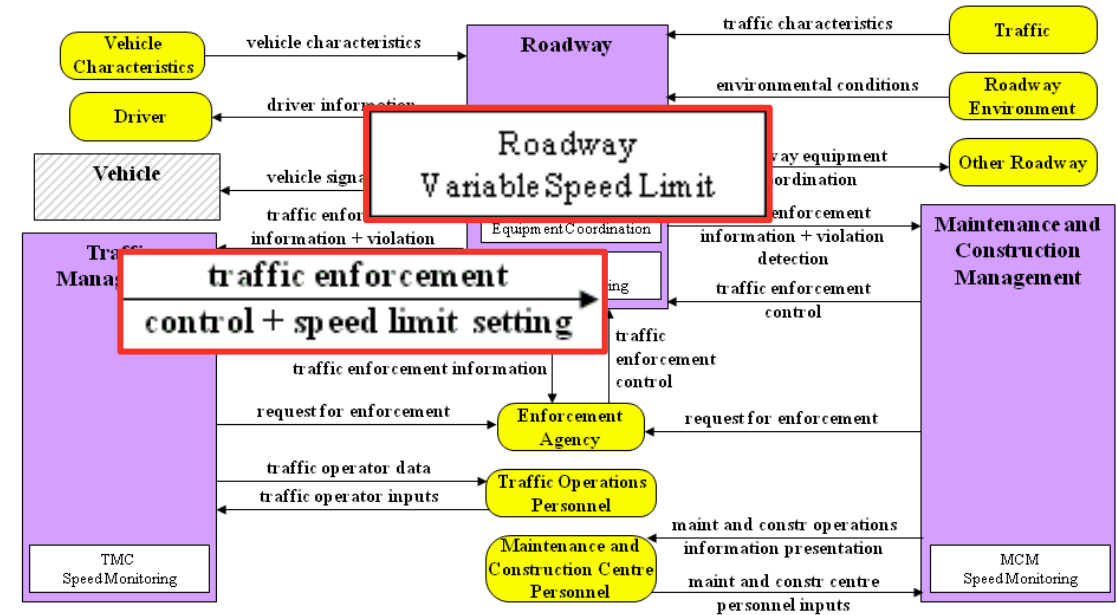
US_V6 Service Package

ATMS19 – Speed Monitoring



CAN_V2 Service Package

ATMS19 – Variable Speed Limit and Enforcement



Service Package with Unique Elements
(in comparison to US_V6)

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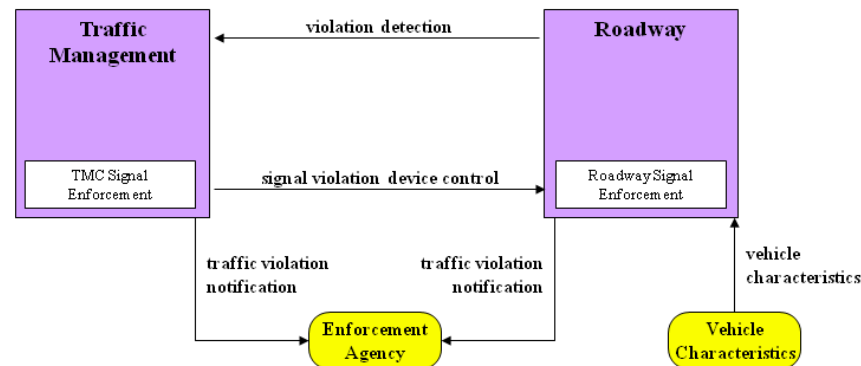
Consider the Fully Unique Service Packages - Signal Enforcement



Supports the detection and enforcement of roadway control signals. A common implementation of this capability is “red light enforcement” for signalised intersections. ...

— There are many examples of red light camera programs in Canada

ATMS102 – Signal Enforcement



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Consider the Fully Unique Service Packages - Roadway Micro-Prediction

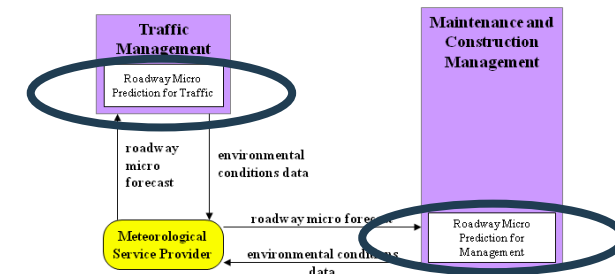


Supports advanced systems which use the data from the Roadway and Weather Data Fusion service package, along with roadway maintenance information and advanced algorithms, to create micro-predictions of roadway conditions which can support improved maintenance planning and dispatch.

— Related ARC-IT Support

- *MCM Maintenance Decision Support in MC04: Winter Maintenance*
- *TMC Environmental Monitoring in WX03: Spot Weather Impact Warning and other Service Packages*

MC101 – Roadway Micro-Prediction



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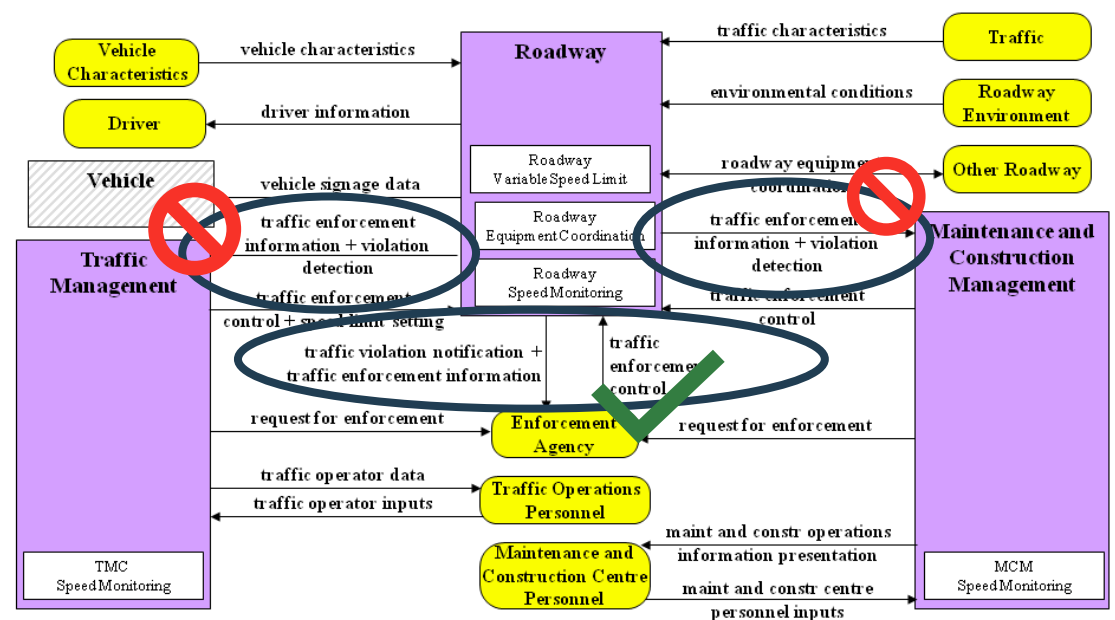
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Consider Service Packages with Unique Elements - Variable Speed Limits and Enforcement



CAN_V2 Service Package

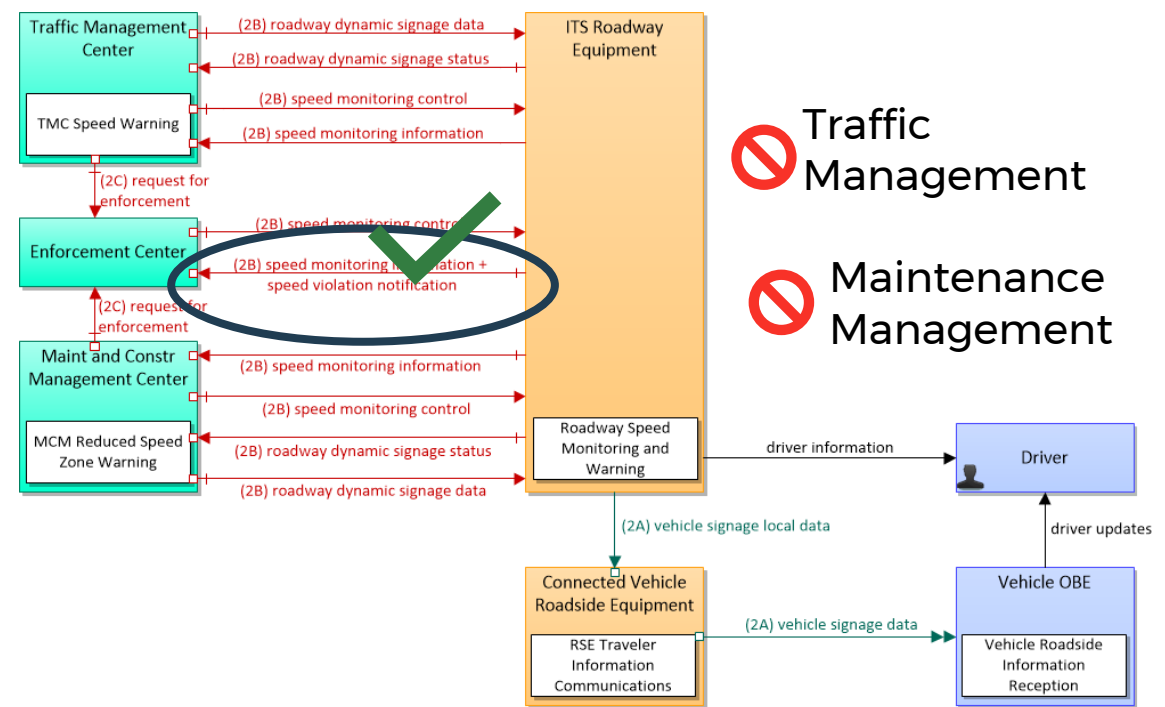
ATMS19 – Variable Speed Limit and Enforcement



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ARC-IT_V8 Service Package

TM17: Speed Warning and Enforcement



Description of uniqueness is in Table 6

TM17: Speed Warning and Enforcement			
4	Physical	Aug 7, 2018	NAT

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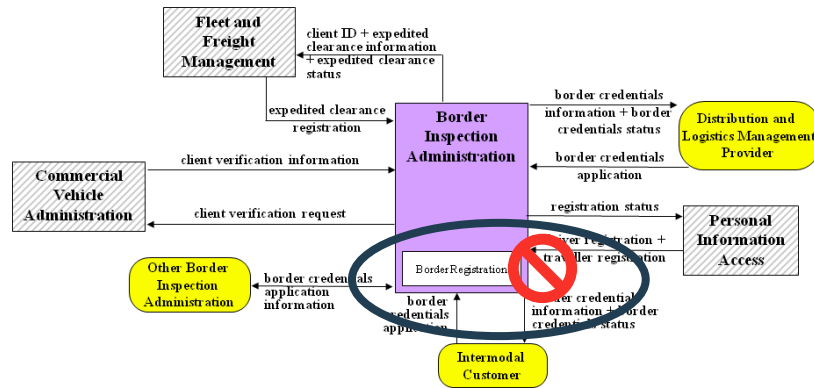
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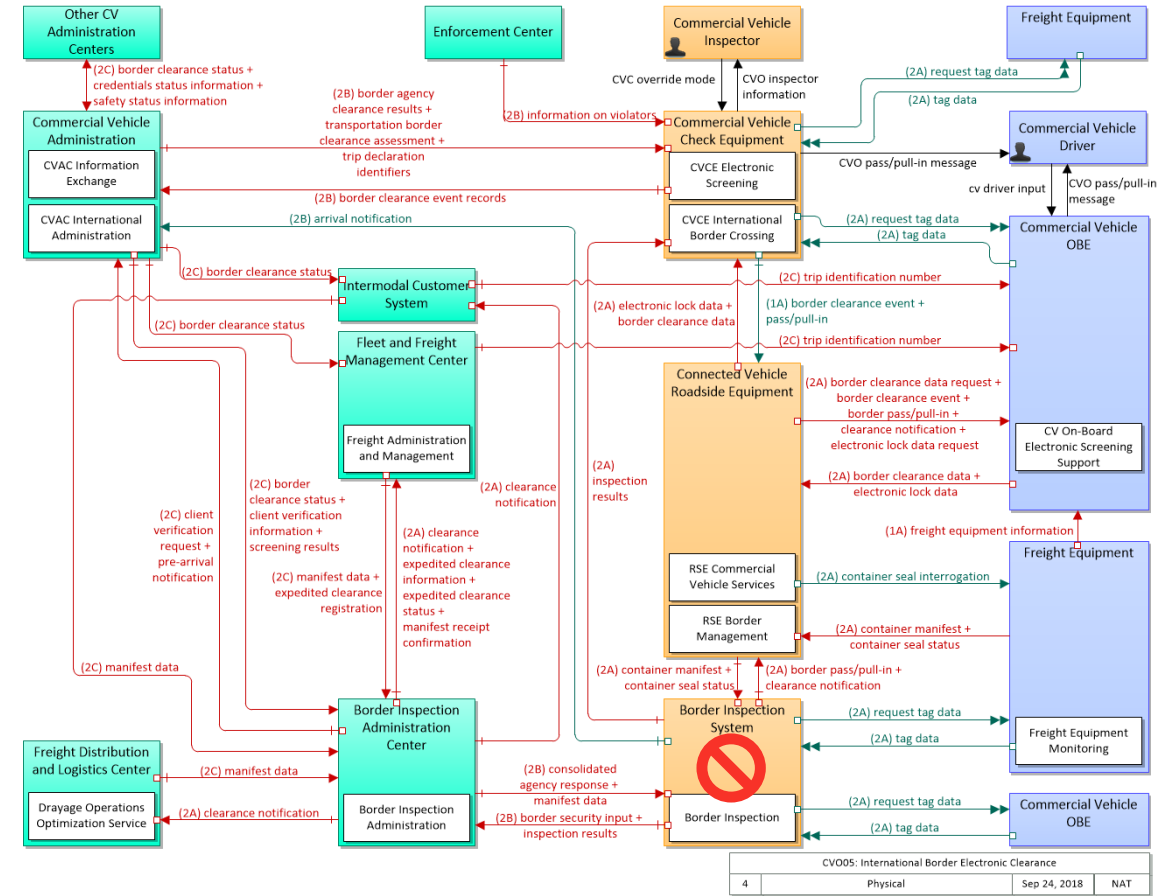
Consider Service Packages with Unique Elements - Border Registration and Pre-Processing



CVO102 – International Border Registration



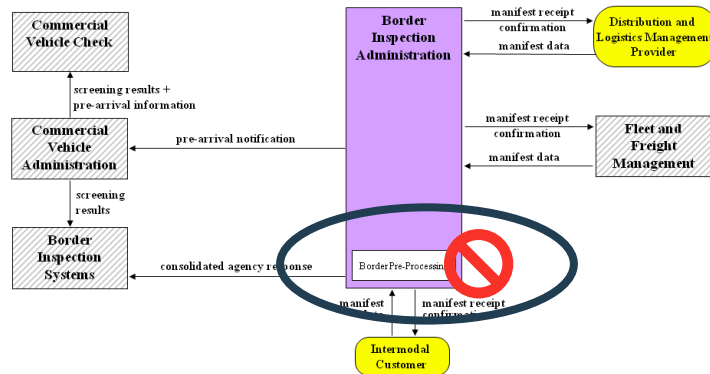
CVO05: International Border Clearance



CVO05: International Border Electronic Clearance			
4	Physical	Sep 24, 2018	NAT

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CVO103 – International Border Pre-Processing



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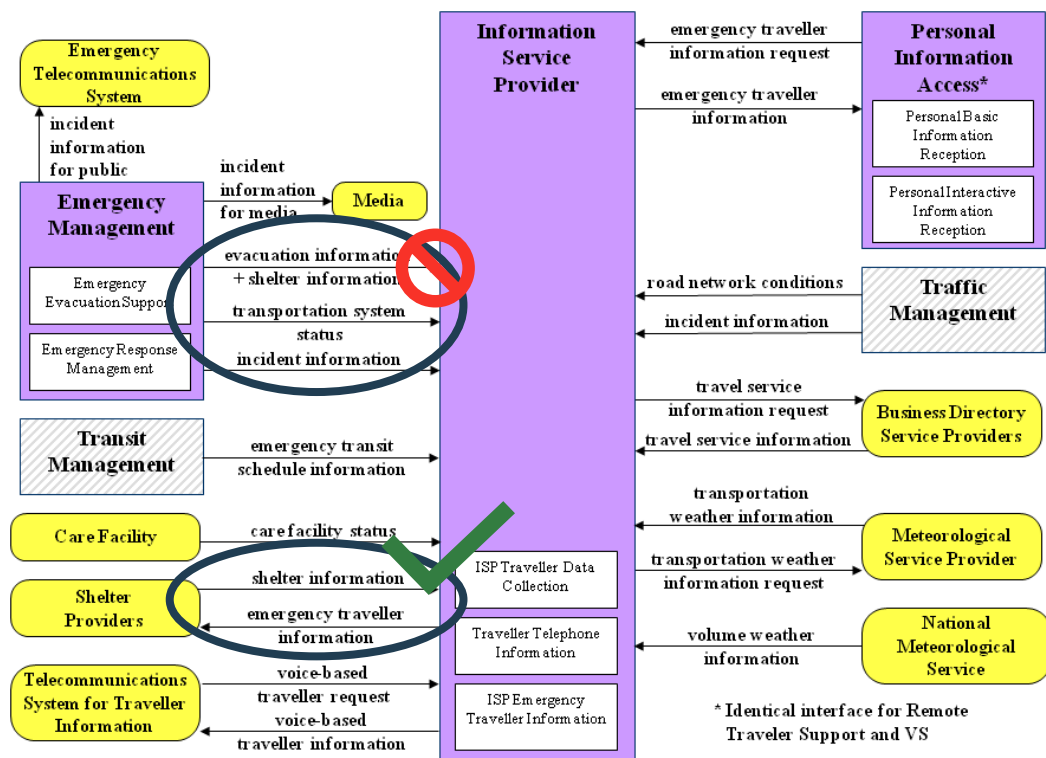
menti.com

Accesscode: **18 69 63**

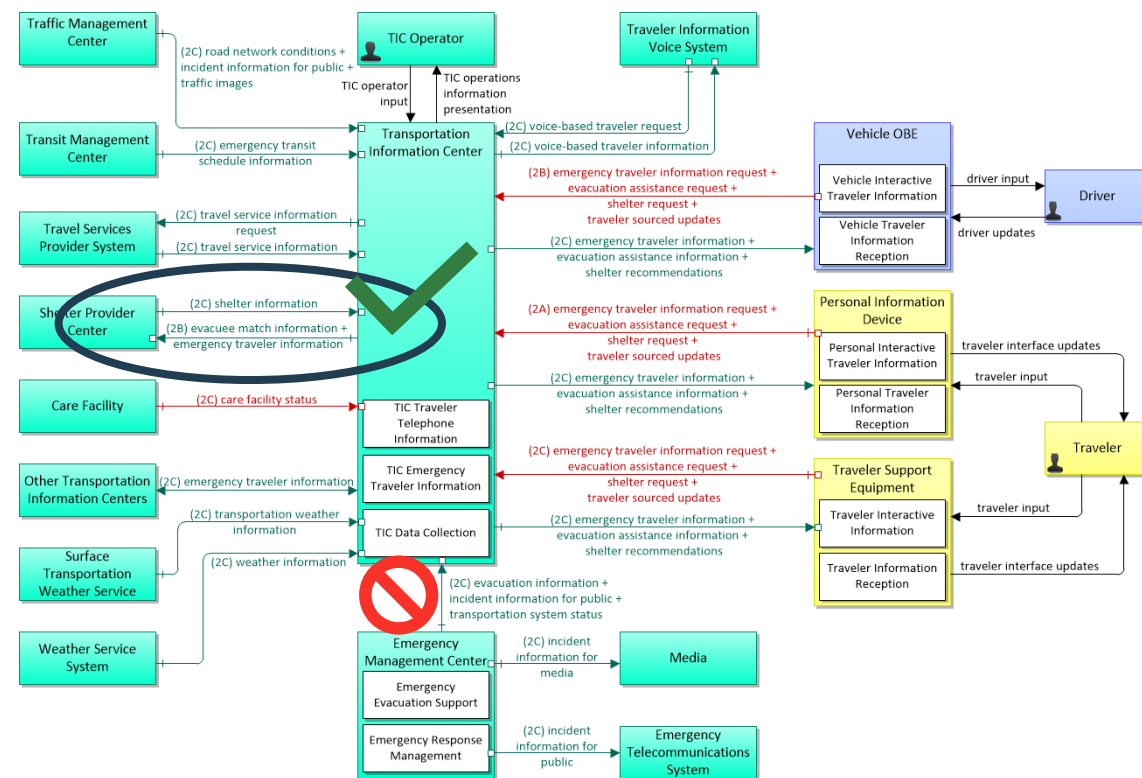
Consider Service Packages with Unique Elements - Disaster Traveller Information



EM10 – Disaster Traveller Information



PS14: Disaster Traveler Information



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Canadian-Unique Names

Consider Element Names

Type	CAN_V2 Name	US_V6 Name	ARC-IT_V8 Name
Service Package	Automated Highway System	Automated Vehicle Operations	Automated Vehicle Operations
	Hazardous Material Planning and Incident Response	HAZMAT Management	HAZMAT Management
	Multimodal Operations Coordination	Railroad Operations Coordination	Railroad Operations Coordination
	Pre-Collision Restraint Deployment	Pre-Crash Restraint Deployment	<i>Autonomous Vehicle Safety Systems</i> <i>V2V Basic Safety</i>
	Roadside Hazardous Material Security Detection and Mitigation	Roadside HAZMAT Security Detection and Mitigation	Roadside HAZMAT Security Detection and Mitigation
	Traffic Forecast and Demand Management	Traffic Decision Support and Demand Management	<i>Integrated Decision Support and Demand Management</i>
	Traveller Services Payment and Reservation	Yellow Pages and Reservation	<i>Travel Services Information and Reservation</i>
	Variable Speed Limit and Enforcement	Speed Monitoring	<i>Speed Warning and Enforcement</i> <i>Variable Speed Limits</i>
Physical Objects	Business Directory Service Providers	Yellow Pages Service Providers	<i>Travel Services Provider System</i>
	Department of Motor Vehicles	DMV	DMV
	Intermodal Customer	Intermodal Freight Shipper	<i>Intermodal Customer System</i>
	Intermodal Freight Equipment	Freight Equipment	Freight Equipment
	Intermodal Terminal	Intermodal Freight Depot	<i>Intermodal Terminal</i>
	Meteorological Service Provider	Surface Transportation Weather Service	Surface Transportation Weather Service
Information Flows	business directory information	yellow pages information	<i>travel services information</i>
	business directory request	yellow pages request	<i>travel services request</i>
	Commercial Vehicle Check override mode	CVC override mode	CVC override mode
	traffic enforcement control	speed monitoring control	speed monitoring control
	traffic enforcement information	speed monitoring information	speed monitoring information
	volume weather information	weather information	weather information
Functional Objects	Infrastructure Provided Business Directory Service and Reservation	Infrastructure Provided Yellow Pages and Reservation	<i>TIC Travel Services Information and Reservation</i>

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Note: multiple

Canadian-Unique Spelling

Consider 'Canadian' Spelling

Element Type	Center		Traveler	
	Name	Description	Name	Description
Service Package	1	22	4	22
Physical Object	33	58	4	18
Information Flow	10	27	28	65
Functional Object	26	88	15	61
TOTAL	70	195	51	166

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Consider Country-specific References

Element Name (CAN_V2)	Element Description		
	CAN_V2	US_V6	ARC-IT_V8
Department of Motor Vehicles	This terminator represents a specific (stateprovincial) public organization responsible for registering vehicles, e.g., the Ministry of Transportation Department of Motor Vehicles .	This terminator represents a specific (state) public organization responsible for registering vehicles, e.g., the Department of Motor Vehicles.	This terminator represents <u>The 'DMV'</u> is a specific (state) public organization responsible for registering vehicles, e.g., the Department of Motor Vehicles.
Government Reporting Systems	This terminator represents the system and associated personnel that prepare the inputs to support the various local, stateprovincial , and federal government transportation data reporting requirements (e.g. Highway Performance Monitoring System, Fatality Analysis Reporting System) using data collected by ITS systems. This terminator represents a system interface that would provide access to the archived data that is relevant to these reports. In most cases, this <u>This</u> terminator would manually combine data collected from the ITS archives with data from <u>non-ITS</u> sources to assemble and submit the required information.	This terminator represents the system and associated personnel that prepare the inputs to support the various local, state, and federal government transportation data reporting requirements (e.g. Highway Performance Monitoring System, Fatality Analysis Reporting System) using data collected by ITS systems. This terminator represents a system interface that would provide access to the archived data that is relevant to these reports. In most cases, this terminator would manually combine data collected from the ITS archives with data from <u>non-ITS</u> sources to assemble and submit the required information.	This terminator <u>Government Reporting Systems'</u> represents the system and associated personnel that prepare the inputs to support the various local, state, and federal government transportation data reporting requirements (e.g. Highway Performance Monitoring System, Fatality Analysis Reporting System) using data collected by ITS systems. This terminator <u>It</u> represents a system interface that would provide <u>provides</u> access to the archived data that is relevant to these reports. In most cases, this terminator would <u>manually system will</u> combine data collected from the ITS archives with data from <u>non-ITS</u> sources to assemble and submit the required information.

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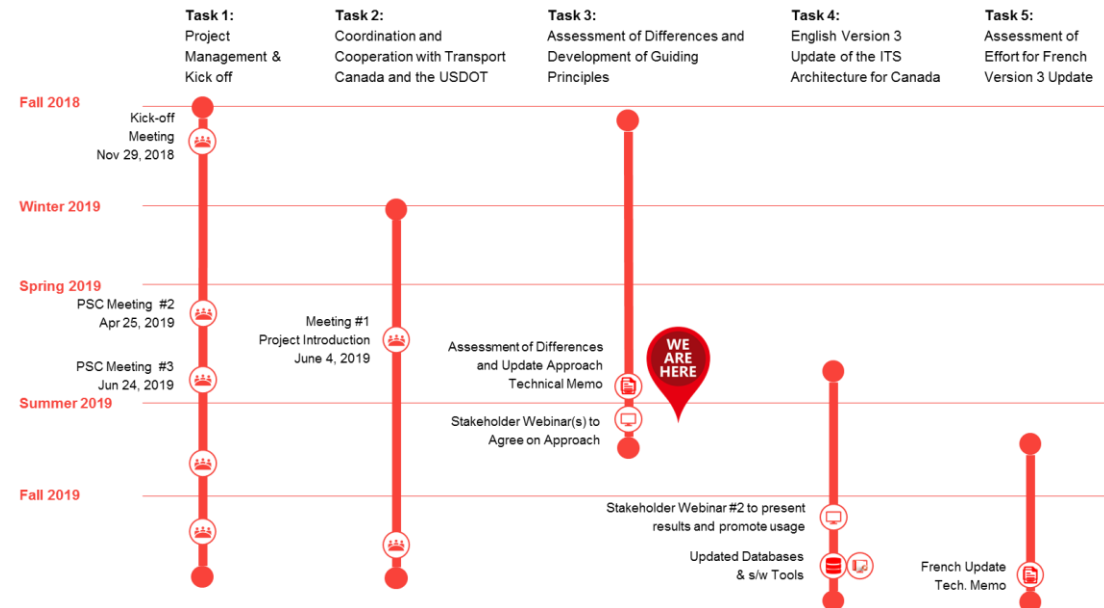
3.0 Next Steps



Next Steps

- Complete Task 3
 - *Online Survey until August 9*
 - *Reconcile feedback from Webinar & Survey*
 - *Review with Transport Canada and Steering Committee*
 - *Finalize approach*

- Complete Update
- Scope French Update



Thank you!

